"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

L 51980-65

ACCESSION NR: AT5012684

tungsten from solution in a single operation under optimum conditions. It was postulated that tungsten penetrates the anions $[PMo_{12}O_{40}]^{3-}$ to form the poly-anions $[PW_nMo_{12-n}O_{40}]$. A technique was worked out for determining $x \times 10^{-4}$ to 2×10^{-2}% tungsten in molybdenum. The coprecipitation of 0.01-10 mg of Nb and Ta with ammonium phosphomolybdate was also studied. A spectrochemical method was used to follow the coprecipitation of Nb and Ta with other ions such as aluminum, iron, and titanium, whose total oxides are present in amounts 10^4-10^5 times greater than Ta and Nb. The study led to the development of a technique for determining these two elements in rocks with large amounts of sesquioxides. A method was also proposed for a secondary concentration of tungsten, niobium, and tantalum by the vacuum distillation of $P_2O_5 \cdot xMoO_3$. Orig. art. has: 6 figures and 2 tables.

ASSOCIATION: Komissiya po analiticheskoy khimii, AN SSSR (Commission for Analytical Chemistry, AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: IC, MM

NO REF SOV: 006 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

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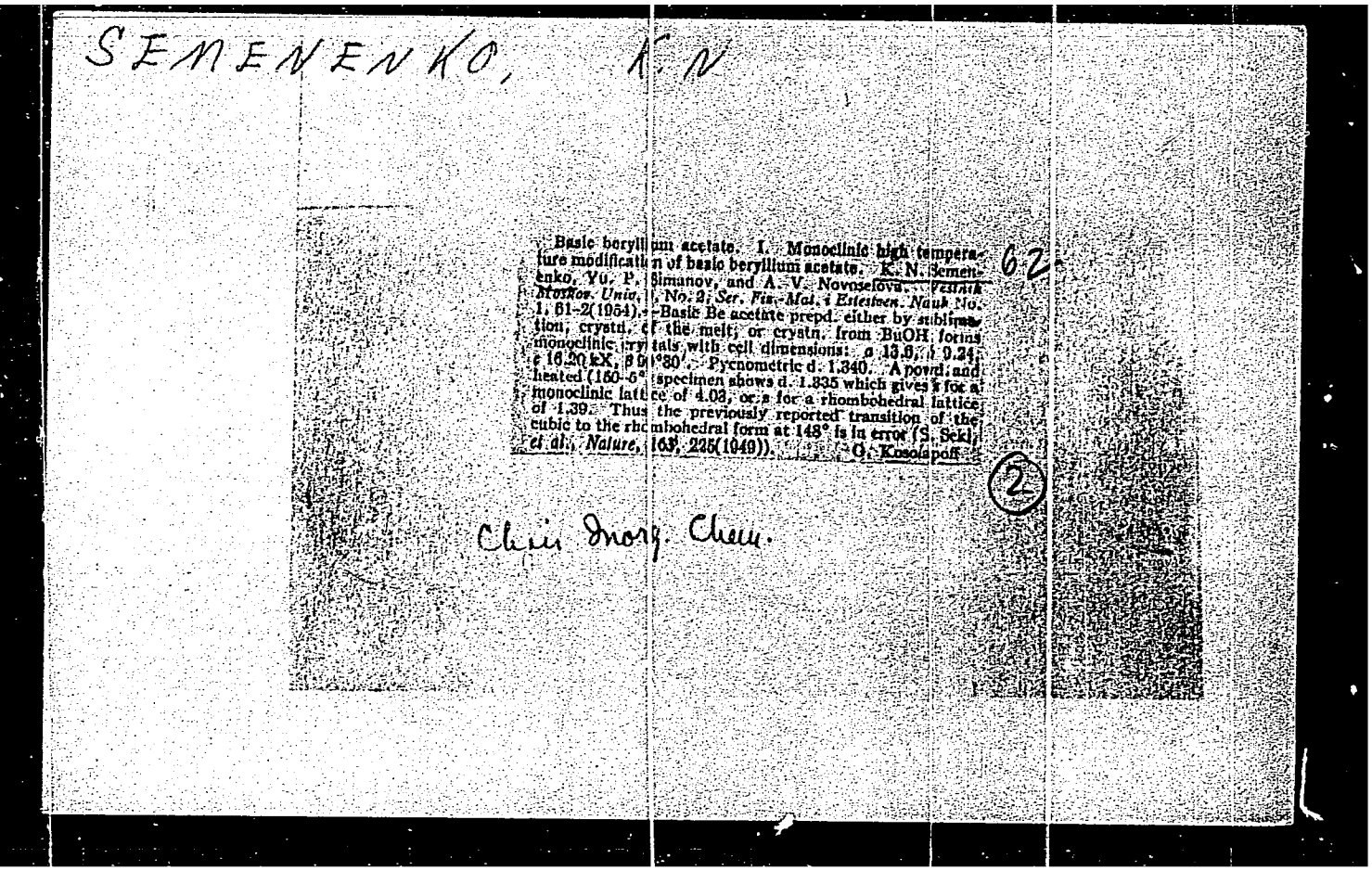

SEMENENKO, K. N.

62

Basic beryllium acetate. I. Monoclinic high temperature modification of basic beryllium acetate. K. N. Semenenko, Yu. P. Simanov, and A. V. Novoselova. *Vestnik Moskov. Univ.*, No. 2, *Ser. Fiz.-Mat. i Estestven. Nauk* No. 1, 61-2(1954).—Basic Be acetate prepd. either by sublimation, crystn. of the melt, or crystn. from BuOH forms monoclinic crystals with cell dimensions: a 13.0, b 9.24, c 16.20 kX, β 91°30'. Pycnometric d. 1.340. A powd. and heated (150-6° specimen shows d. 1.835 which gives z for a monoclinic lattice of 4.03, or z for a rhombohedral lattice of 1.39. Thus the previously reported transition of the cubic to the rhombohedral form at 148° is in error (S. Sekl, *et al.*, *Nature*, 163, 225(1949)). G. Kosolapoff

(2)

Chim Inorg. Chem.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.

USSR/Chemistry FD-775

Card 1/1 : Pub 129-12/24

Author : Lapitskiy, A. V.; Simanov, Yu. P.; Semenenko, K. N.; Yarembash, Ye. I.

Title : Some properties of tantalum pentoxide

Periodical : Vest. Mosk. un., Ser. fizikomat. i yest. nauk, Vol 9, No 2, 85-89, Mar 1954

Abstract : Studied the dehydration process of tantalum pentoxide hydrate in the temperature range of 25-450 degrees. Established the possibility of the existence of a tantalic acid with the composition $H_7[Ta(TaO_4)_4]$. Also studied the possible polymorphic conversions of tantalum pentoxide using X-ray and thermographic techniques. Determined the parameters of two modifications of tantalum pentoxide indicated in the rhombic lattice. Expressed an assumption regarding the possibility of the existence of a tantalic acid having the composition $H_{13}[Ta(TaO_4)_6]$. One table. Eight references (three foreign).

Institution : Chair of Inorganic Chemistry

Submitted : July 11, 1953

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

FD-2167

USSR/Chemistry - Inorganic

Card 1/1 Pub 129-7/20

Author : Novoselova, A. V.; Pashinkin, A. S.; Semenenko, K. N.

Title : Investigating the system NH_4Cl - $BeCl_2$ by thermometric titration and solubility determination

Periodical : Vest. Mos. un., Ser. fizikomat. i yest. nauk, 10, No 2, 49-56, Mar 1955

Abstract : Confirmed the formation of complexes between beryllium and ammonium chlorides by thermometric titration (plotting temperature vs composition and using maxima as indications of complex formation.). Also obtained solubility data on the system NH_4Cl - $BeCl_2$ - H_2O. Tables, diagrams, Fourteen references (six USSR; eight since 1940).

Institution : Chair of Inorganic Chemistry

Submitted : September 2, 1954

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

NOVOSELOVA,A.V.; PASHINKIN,A.S.; SEMENENKO,K.N.; YAREMBASH,Ye.I.

Instrument designed for laboratory work with hygroscopic and hydrolyzing substances. Zav.lab.21 no.7:857-858 '55.
(MLRA 8:10)

1. Moskovskiy gosudarstvennyy universitet
(Chemical apparatus)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

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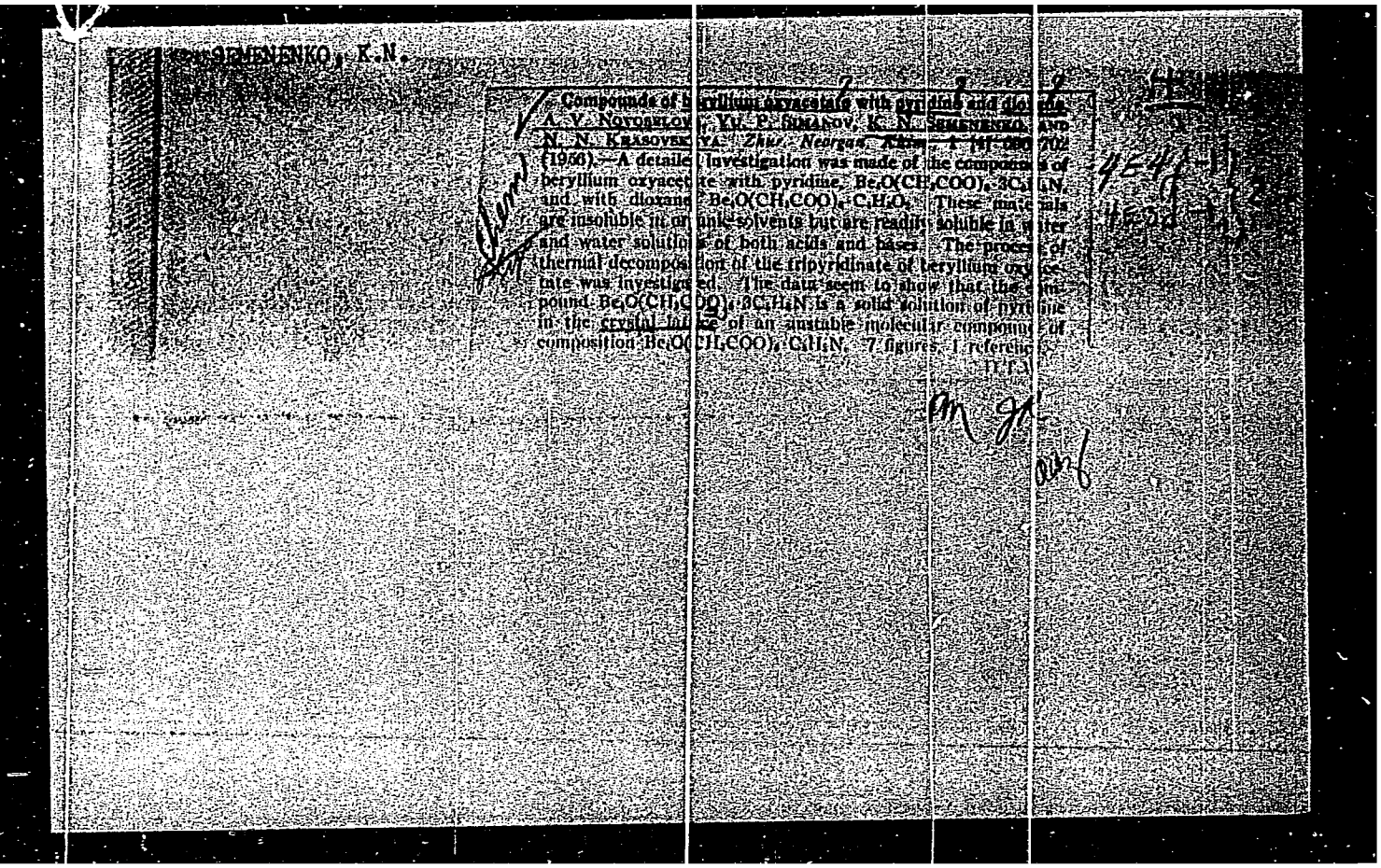

SEMENENKO, K.N.

Compounds of beryllium oxyacetate with pyridine and dioxane. A. V. Novoselov, K. N. Semenenko, Yu. P. Simanov, and N. N. Krasovskii. *Zhur. Neorgan. Khim.* 1 (1956). — A detailed investigation was made of the compounds of beryllium oxyacetate with pyridine, $Be_4O(CH_3COO)_6 \cdot 3C_5H_5N$, and with dioxane, $Be_4O(CH_3COO)_6 \cdot C_4H_8O_2$. These materials are insoluble in organic solvents but are readily soluble in water and water solutions of both acids and bases. The process of thermal decomposition of the tripyridinate of beryllium oxyacetate was investigated. The data seem to show that the compound $Be_4O(CH_3COO)_6 \cdot 3C_5H_5N$ is a solid solution of pyridine in the crystal lattice of an unstable molecular compound of composition $Be_4O(CH_3COO)_6 \cdot C_5H_5N$. 7 figures. 1 reference.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

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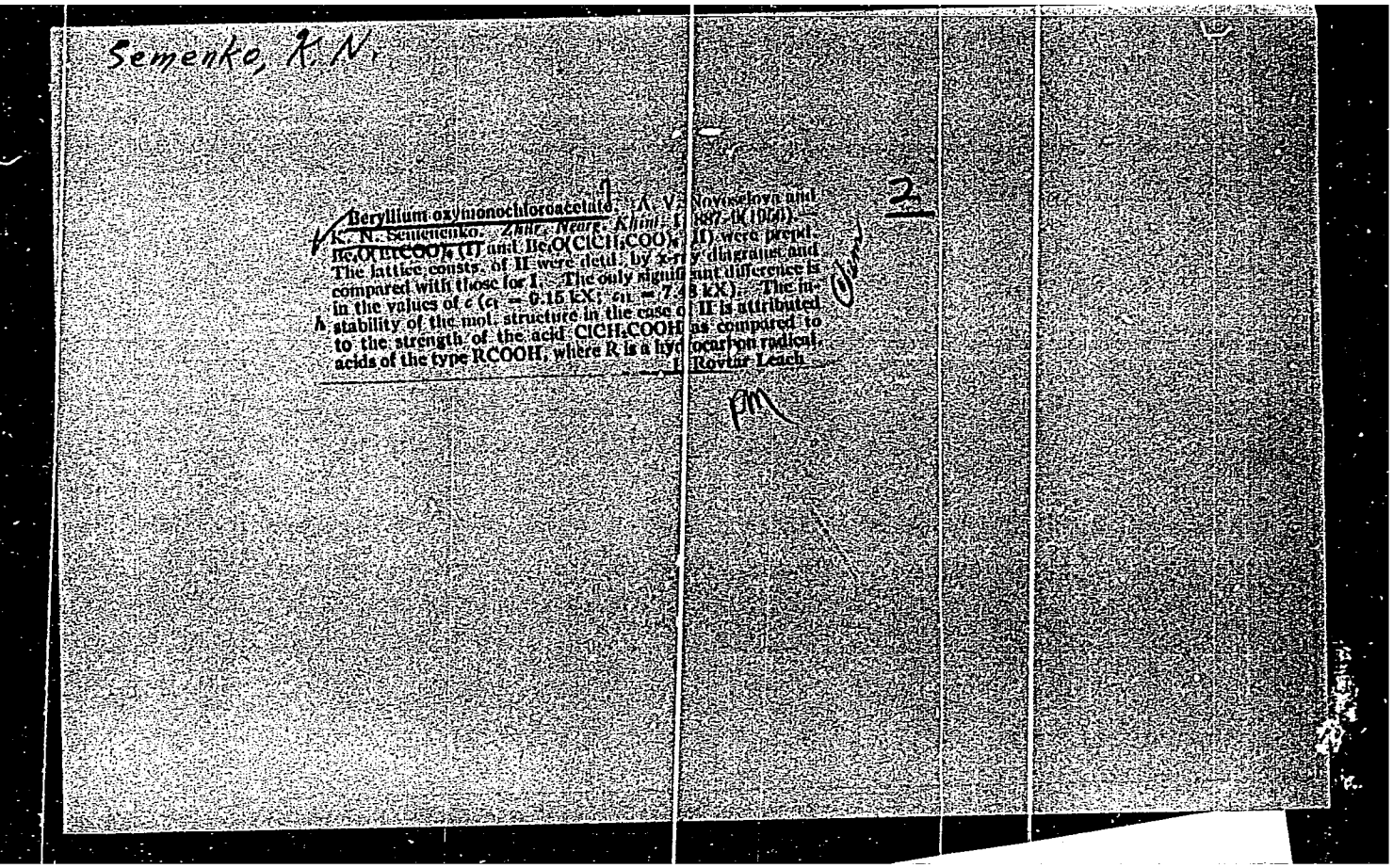

Semenko, K. N.

Beryllium oxymonochloroacetate. K. N. Semenko. Zhur. Neor. Khim. [illegible] Be4O(ClCH2COO)6 (II) and Be4O(CCl3COO)6 (III). The lattice consts. of II were detd. by x-r compared with those for I. The only signif in the values of c (c1 = 0.15 kX; c11 = 7.4 stability of the mol. structure in the case to the strength of the acid ClCH2COOH acids of the type RCOOH, where R is a hyd

Novoselova and 687-9(1964)). II) were prepd. y diagrams and ant differences is 8 kX). The in- II is attributed as compared to ocarbon radical. Rovtar Leach

FM

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K. N.

C.

USSR/Inorganic Chemistry - Complex Compounds.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30322

Author : Novoselova, A.V., Semenenko, K.N.

Inst :

Title : Interaction of Beryllim Oxyacetate with Beryllium Oxymonochloracetate.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 10, 2344-2348

Abst : By methods of thermal and x-ray phase analyses a study was made of the system $Be_4O(CH_3COO)_6$ (I) - $Be_4O(CH_2ClCOO)_6$ (II). A chemical interaction takes place in the system between I and II, which results in the formation of four phases of variable composition which crystallize on the b asis of I, II, $Be_4O(CH_3COO)_4(CH_2ClCOO)_2$ (III) and $Be_4O(CH_3COO)_2(CH_2ClCOO)_4$. The system is characterized by two eutectics: 72% I at 210° and 23% I at 190°, peritec- tic

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SIMENENKO, K.N.

TUROVA, N.Ya.; NOVOSELOVA, A.V.; SIMENENKO, K.N.

Reaction of beryllium hydroxyacetate with ammonium difluoride.
Zhur. neorg. khim. 1 no.11:2567-2569 N '56. (MLRA 10:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Beryllium acetates) (Ammonium fluorides)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

1 SEMENENKO, K. N. C

USSR / Inorganic Chemistry. Complex Compounds

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, No 7797

Author : Novoselova, A.V., Semenenko, K.N., Krasovskaya, N.N. and Simanov, Yu.P.

Inst : Moscow University

Title : Beryllium Oxyacetate. Communication 2. Concerning Some Properties of Beryllium Oxyacetate-Pyridine Compounds

Orig Pub : Vestn. Mosk. Un-ta, 1956, No 3, 87-93

Abstract : Barium oxyformate, $Be_{14}(HCOC)_6$ (I), has been synthesized and investigated and the formation and the properties of compounds of I, beryllium oxyacetate ($Be_4O(CH_3COO)_6$ (II), and beryllium oxypropionate ($Be_4O(CH_3CHCOO)_6$ (III) with pyridine (IV) and dioxene (V) have been studied. I was prepared by treating Be hydroxide or bicarbonate with formic acid, followed by the decomposition of the nromal Be formate which is obtained in vacuo at 250 - 260°. At 250°, the yield of pure I

Card : 1/4

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.

Beryllium oxyacetate. III. Interaction of beryllium oxyacetate with ammonia? [N. Maksimov, A. V. Novoselova, and K. N. Semenko. *Vestnik Moskov. Univ., Ser. Mat., Mekh., Astron., Fiz. i Khim.* 11, No. 2, 201–4(1956); cf. *C.A.* 50, 1639i.—Dry NH_3, passing in $Be_4O(AcO)_6$, dissolved in $CHCl_3$, produces a ppt. (I), quickly dissolving in excess of NH_3, and forming a product (II), but giving way to a heavy insol. final ppt. (III). The soln. contains a substance (IV), different from III. According to analysis of I–IV, the following scheme of reaction is suggested: $Be_4O(AcO)_6 \xrightarrow{NH_3,\ CHCl_3} Be_4O(AcO)_6 \cdot 2NH_3$ (I) $\xrightarrow{NH_3,\ CHCl_3}$ $Be_4O(AcO)_6 \cdot 8NH_3$ (II) with further NH_3 in $CHCl_3$ forming III and IV, with the respective compns.: (Be, OAc, NH_3, resp.) III 1, 2, 1.1–1.9; IV 1, 1.3–0.5. After the formation of III the further penetration of NH_3 causes the mol. to [illegible]comp.

R. Rvahkevitch

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K. N

USSR/Inorganic Chemistry. Complex Compounds. C

Abs Jour: Ref. Zhur-Khimiya, No 1, 1958, 663.

Author : Maksimov, V.N., Novoselova, A.V., Semenenko, K.N.
Inst : -
Title : Lanthanum Acetate.

Orig Pub: Zh. Neorgan. Khimii, 1957, 2, No 5, 997-1000

Abstract: When $La(CH_3COO)_3 \cdot 1.5\ H_2O$ is heated at 50-110°, 0.5 molecule of water is lost and the monohydrate is formed which subsequently is completely dehydrated during heating at 110-150°. In the course of this treatment the dehydrated $La(CH_3COO)_3$ is partially decomposed and at a temperature of ~300° it is converted into "metaacetate" $LaO(CH_3COO)$. During boiling of the $La(CH_3COO)_3 \cdot 1.5\ H_2O$ in acetic anhydride a water-free lanthanum acetate is obtained that is stable in the air at room temperature. During heating to 300° it also is converted to $LaO(CH_3COO)$.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Семенко К.Н.

SEMENENKO, K.N.

Salts of zinc and cadmium with the simplest organic acids of the type RCOOH. Zhur.neorg.khim. 2 no.9:2115-2121 S '57. (MIRA 10:12)
(Zinc salts) (Cadmium salts) (Acids, Organic)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

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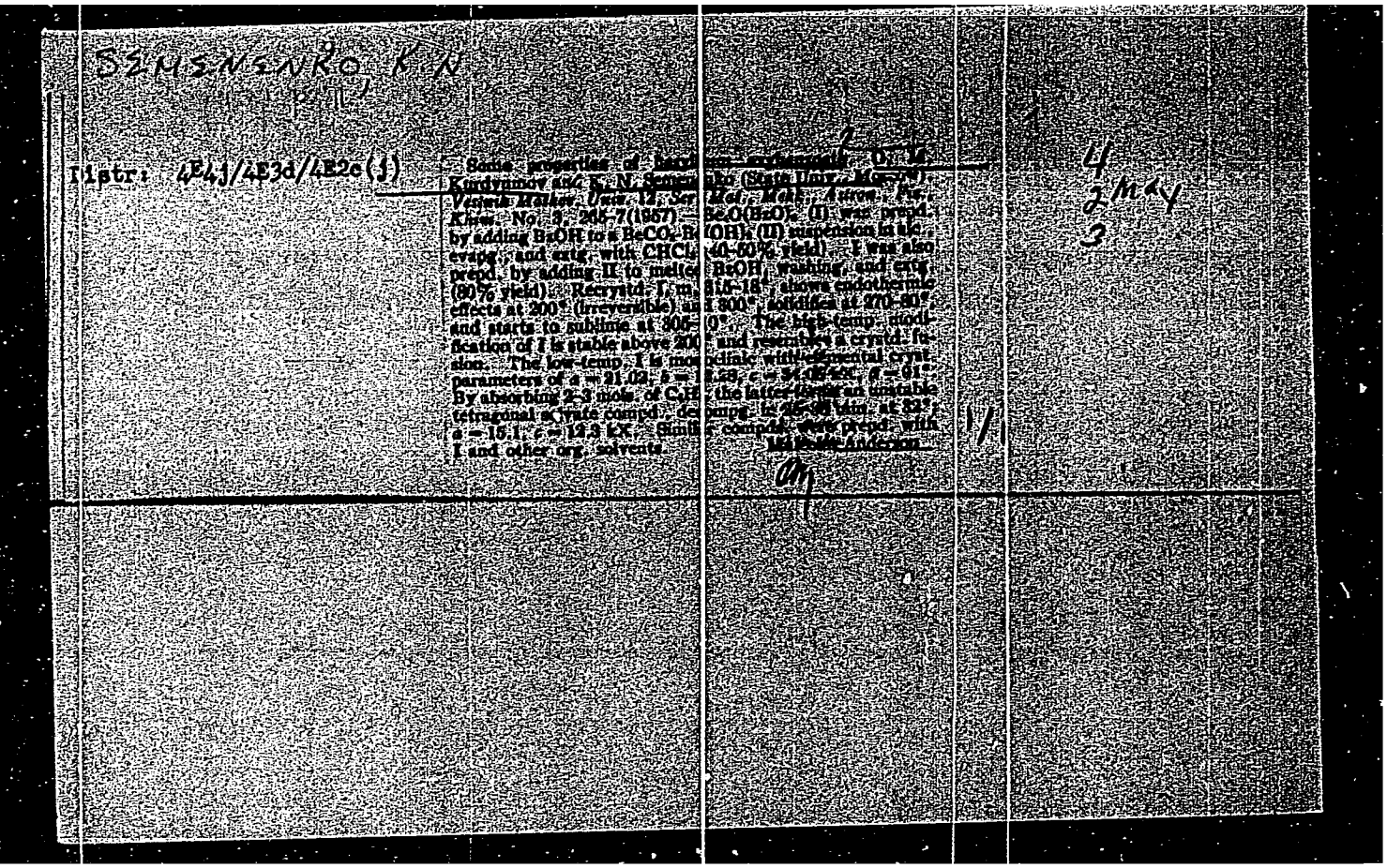

SEMSENKO K N

Liptr: 4E4J/4E3d/4E2c(J)

Some properties of beryl Kurdyumov and K. N. Semen Vestnik Moskov. Univ. 12, Ser Khim. No. 5, 205-7(1957) — by adding BaOH to a BeCO3-B evapg., and extg. with CHCl3 prepd. by adding II to melte (80% yield). Recrystd. I, m. effects at 200° (irreversible) an and starts to sublime at 305- sication of I is stable above 200 alon. The low-temp. I is mo parameters of a = 21.02, b = By absorbing 2-3 mols. of C6H (tetragonal acylate compd., de a = 15.1, c = 12.3 kX. Simil I and other org. solvents.

2

on—carbonate (I). M. bo (State Univ., Moscow) Ref. Mak. Atom. Ener. 3:5O(H2O)2 (II) was prepd. (OH)2 (III) suspension in H2 40-60% yield). I was also BaOH, washing, and extg. 415-18°, shows endothermic 300°, solidifies at 270-80° 0°. The high-temp. modi and resembles a crystal fa pedlake with elemental cryst 3.58, c = 5.46 kX., β = 91° (the latter being an unstable pumpg. to 2e-2 mm. at 82°; compd., then prepd. with 161 p.e. Anderson

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(3)

AUTHORS: Semenenko,K.N. and Kurdyumov,G.M. SOV/55-58-2-28/35

TITLE: On Complex Compounds of Zinc Acetate With Nitrogenous Organic Substances (O kompleksnykh soyedineniyakh uksusnokislogo tsinka s azotsoderzhashchimi organicheskimi veshchestvami)

PERIODICAL: Vestnik Moskovskogo Universiteta.Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1958,Nr 2,pp 207-210 (USSR)

ABSTRACT: The compounds $Zn(CH_3COO)_2 \cdot 2C_5H_5N$ and $Zn(CH_3COO)_2 \cdot 2C_4H_8NH_2$ were produced and investigated. It was shown that zinc acetate solutions in water and several organic solvents possess an abnormally high viscosity. The monocrystals of the produced combinations mentioned above were radiographically investigated.
There are 3 tables, and 8 references, 1 of which is Soviet, 3 are German, 2 French, and 2 American.

SUBMITTED: June 7, 1957

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHOR: Semenenko K N. SOV/156 58-2-19/48

TITLE: Concerning the Zinc Salts of Propionic and Butyric Acids (O solyakh tsinka s propionovoy i maslyanoy kislotami)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 283 - 284 (USSR)

ABSTRACT: Zinc propionate and zinc butyrate are only slightly soluble in water or in aqueous solutions of propionic or butyric acid, and they form no hydrated crystals. They can be converted to zinc oxide by heating in hot concentrated acid. These salts crystallize as small, very soft, thin transparent platelets. These crystals were washed with absolute ether and analysed. Zinc propionate and zinc butyrate are practically insoluble in such solvents as benzene, ether, and chloroform. At 150-200° and atmospheric pressure they sublime without decomposition. Figure 1 shows the "thermogram" for heating each salt. The endothermic effects at 205° and 160° (Fig 2, curve "1") correspond to the melting points of these salts. In figure 2 these endothermic effects at the melting point are compared to that for zinc acetate (non-aqueous). The linear relationship

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Concerning the Zinc Salts of Propionic and Butyric Acids SOV/156-58-2-19/48

between the melting temperatures of the salts of type $Zn(RCOO)_2$ and the number of carbon atoms in each salt is striking. The results of x-ray investigations on both salts are given. Because of their low melting points these salts probably do not exist in a crystalline lattice. They are remarkable for their relatively weak intermolecular bonds.

ASSOCIATION: Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Chair of Inorganic Chemistry of the Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 5, 1957

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(2)
AUTHORS: Semenenko, K.N. and Kurdyumov, G.M. SOV/55-58-3-22/30

TITLE: On the Combinations of Beryllium Hydroxybenzoate With Toluene and Halogen-Substituted Benzene (O soyedineniyakh oksibenzoata berilliya s tsluolom i galogenzameshchennymi benzolami)

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya matematiki, mekhaniki, astronomii, fiziki, khimii ,1958,Nr 3,pp 187-190 (USSR)

ABSTRACT: By vaporization of a Be-hydroxybenzoate solution in a corresponding solvent there were obtained in crystalline form less stable combinations of Be-hydroxybenzoate with some organic molecules. A radiography was carried out and it showed that the organic molecules are enclosed in the interspaces of the crystal lattice of Be-hydroxybenzoate, whereby the original lattice is somewhat deformed.
There are 2 tables, and 2 Soviet references.

ASSOCIATION: Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry)
SUBMITTED: June 7, 1957

Card 1/1

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHOR: Semenenko, K. N. 78-3-5-28/30

TITLE: On the Acetates of Zinc and Beryllium (Ob atsetatakh tsinka i berilliya)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1467-1468 (USSR)

ABSTRACT: The syntheses of oxy-acetates and acetates of zinc and beryllium are described. The synthesis of oxy-acetate of zinc was obtained by the thermal decomposition of $Zn(CH_3COO)_3 \cdot 2\ H_2O$ in vacuum at 280°C. Zincoxy-acetate is isomorphous with berylliumoxyacetate and has a cubic crystalline structure. Normal zinc-acetate crystallizes in cubic volume centered lattice with a parameter a= 10,92 ± 0,05. The properties of normal zinc acetate differ substantially from those of the normal beryllium acetate. The analogy between zinc- and berylliumacetate-compounds comprises only their oxy-acetates, whereas the normal acetates differ considerably. There are 1 table and 5 references, 3 of which are Soviet.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

On the Acetates of Zinc and Beryllium 78-3-6-28/30

SUBMITTED: [illegible], 1957

AVAILABLE: Library of Congress

1. Zinc acetate--Synthesis 2. Beryllium acetate--Synthesis

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHORS: Maksimov, V. N., Semenenko, K. N. 78-3-6-29/30

TITLE: On Lanthanum-Acetate With 5 mol Water (O pyativodnom atsetate lantana)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1468-1469 (USSR)

ABSTRACT: A crystalline lanthanum acetate with 5 mol water was obtained by slow crystallization at temperatures of 13 to 20°C. The crystals are big and prismatic. The chemical composition of this compound is the following: (in per cent by weight) La_2O_3 - 40,3, C - 17,85, H - 5,00. The parameters of the elementary cells were found by radiographic investigations: a = b = 9,0 ± 0,1 kX, c= 8,9 ± 0,1 kX, $\alpha = \beta = \gamma = 96 \pm 1^{\circ}$.
The thermographic analyses of the compound were investigated and it was found that the compound loses 17,7 % of its weight at 25°C and passes over into lanthanum acetate with 1 mol water. The last mol water is delivered at 150°C. The anhydrous lanthanum acetate is stable up to 250°C and beyond this temperature the decomposition continues white LaO . CH_3 COO

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

On Lanthanum-Acetate With 5 mol Water 78-3-6-29/30

forms. There are 1 figure and 4 references, 1 of which is Soviet.

SUBMITTED: November 22, 1957

AVAILABLE: Library of Congress

1. Chemical compound--Properties 2. Chemical compound--Analysis
3. Lanthanum acetate--Applications

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHORS: Zlomanov, V.P., Novoselova, A.V., Pashinkin, A.S., Simanov, Yu.P., Semenenko, K.N. SOV/78-3-7-1/44

TITLE: Determination of the Pressure of Steam Saturated With Solid Tellurium Dioxide (Opredeleniye davleniya nasyshchennogo para tverdoy dvuokisi tellura)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 7, pp 1473-1477 (USSR)

ABSTRACT: The pressure of steam saturated with solid tellurium dioxide was determined in the temperature interval of 457-704° C by means of a radioactive tellurium isotope. The phase composition of tellurium dioxide was determined, for which purpose thermograms for the temperature interval of 25-800° C, as well as heating- and cooling diagrams were made. X-ray analyses showed that the crystal lattice of tellurium dioxide is tetragonal and has the following parameters: a = 4,796, c = 7,588 kX.
On the strength of the results obtained by thermographical and radiographical analyses it follows that the solid phase of the vaporous tellurium dioxide shows tetragonal modifications. There are 3 figures, 2 tables, and 16 references, 9 of which are Soviet.

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Determination of the Pressure of Steam Saturated With Solid Tellurium Dioxide SOV/ 78-3-7-1/44

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)

SUBMITTED: July 8, 1957

1. Steam--Pressure 2. Pressure--Determination 3. Tellurium dioxide--Phase studies 4. Tellurium isotopes--Applications 5. X-rays--Applications

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHORS: Grigor'yev, A.I., Novosalova, A.V., Semenenko K.N. SOV/78-3-7-22/44

TITLE: On the Compounds of Beryllium Oxyacetate With Ethylamine and Butylamine (O soyedineniyakh oksiatsetata berilliya s etilaminom i butilaminom)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 7, pp 1599-1604 (USSR)

ABSTRACT: Compounds of beryllium oxyacetate with ethylamine and butylamine were synthetized. Analyses resulted in the following compositions: $Be_4O(CH_3COO)_6 \cdot 8\ C_2H_5NH_2$, $Be_4O(CH_3COO)_6 \cdot 4\ C_2H_5NH_2$, $Be_4O(CH_3COO)_6 \cdot 3\ C_2H_5NH_2$, $Be_4O(CH_3COO)_6 \cdot 8\ C_4H_9NH_2$, $Be_4O(CH_3COO)_6 \cdot 4 C_4H_9NH_2$, $Be_4O(CH_3COO)_6\ 3\ C_4H_9NH_2$ and $Be_4(CH_3COO)_6 \cdot C_4H_9NH_2$.

The complex compounds with butylamine are easily decomposed. The crystal lattices of the compounds $Be_4O(CH_3COO)_6 \cdot 4\ C_2H_5NH_2$ and $Be_4O(CH_3COO)_6 \cdot 4\ C_4H_9NH_2$ are very similar. The thermograms of the compounds of beryllium oxyacetate with ethylamine and butylamine

Card 1/2

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AUTHORS: Novoselova, A. V., Semenenko, K. N. SOV/78-3-9-34/38

TITLE: Chlorination of Beryllium Oxide With Carbon Tetrachloride (Khlorirovaniye okisi berilliya chetyrekhloristym uglerodom)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2213-2214 (USSR)

ABSTRACT: An apparatus for the chlorination of beryllium oxide with carbon tetrachloride in the so-called "boiling layer" was described. Beryllium oxide is chlorinated at a temperature of 700-800°C in a quartz boat with carbon tetrachloride vapor and with nitrogen as a carrier. The beryllium chloride formed - $BeCl_2$ - is removed from the zone of reaction by sublimation. The reactor for the reaction is placed vertically. This apparatus for chlorination of beryllium oxide in the boiling layer shows that after 20 to 25 minutes almost 95% of all the beryllium oxide has been chlorinated. A chlorination of beryllium oxide in a horizontal reactor, however, does not supply a quantitative yield even after several days.
There are 1 figure and 3 references, 0 of which is Soviet.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

AUTHORS: Grigor'yev, A. I., Semenenko, K. N. SOV/78-3-12-34/36

TITLE: Concerning the Compound Beryllium Oxyacetate With Methyl Amine (O soyedinenii oksiatsetata berilliya s metilaminom)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 12, pp 2806-2807 (USSR)

ABSTRACT: The compound $Be_4O(CH_3COO)_6 \cdot 4CH_3NH_2$ was prepared in the form of large rhombic prisms by slow vaporization of a saturated solution in liquid methyl amine at room temperature. X-ray studies showed that this compound crystallizes with a triclinic lattice with the following parameters: a=8.34 Å, b=10.20 Å, c=9.44 Å, $\alpha=58^\circ$, $\beta=55^\circ$, $\gamma=60^\circ$. The polythermal decomposition curve of $Be_4O(CH_3COO)_6 \cdot 4CH_3NH_2$ was constructed using the thermogravimetric determination method. The compounds formed by beryllium with ethyl and butyl amines have similar properties to those which form from methyl amine.
There are 1 figure and 2 Soviet references.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SOV/156-58-4-22/49

AUTHORS: Tarasevich, N. I., Semenenko, K. A., Semenenko, K. N.

TITLE: The Radiographic Investigation of the Products of Chemical Reactions in Spectroscopic Determinations of Niobium (Rentgenograficheskoye izucheniye produktov khimicheskikh reaktsiy pri spektral'nom opredelenii niobiya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 700-705 (USSR)

ABSTRACT: In the present paper the products formed on the carbon electrode in the spectrum analysis of niobium determination were radiographically investigated. The following samples were investigated: I. Nb+C; II. Si+C; III. Nb+Si+C; IV. Nb_2O_5+C; V. Nb_2O_5+Si+C; VI. Nb_2O_5+SiO_2+C. The radiograms of the products were taken. The radiographic investigation shows that in the interaction of metallic niobium with carbon only niobium carbide is formed. In the interaction between silicon and carbon SiC is formed. The interaction between carbon and a mixture of Nb and Si takes a complex way, however. The radiographic analysis shows that in the reaction products the

Card 1/3

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The Radiographic Investigation of the Products of Chemical Reactions in Spectroscopic Determinations of Niobium

following phases are formed: cubic NbC and tetragonal β-Nb_5Si_3. The interaction of Nb_2O_5 with the carbon electrode shows only a modification of Nb_2O_5 with small impurities of NbO_2. Lower niobium oxides were not determined. In the interaction between niobium pentoxide Nb_2O_5 and elementary silicon with carbon NbO_2 and a phase difficultly identified are formed. The interaction between niobium pentoxide Nb_2O_5 and silicon dioxide with carbon leads to the formation of NbO_2 and niobium pentoxide. In the presence of elementary silicon and SiO_2 niobium dioxide is formed on the carbon crater during the spectroscopic determination of niobium. The excitation source and excitation conditions as well as the amperage do practically not exert any influence upon the composition of niobium phases in the carbon crater. There are 1 figure, 4 tables, and 6 references, 4 of which are Soviet.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(2)

AUTHOR: Semenenko, K.N. SOV/55-58-5-24/34

TITLE: On Oxysalts of Beryllium (Ob oksisolyakh berilliya)

PERIODICAL: Vestnik Moskovskogo universiteta, Seriya matematiki, mekhaniki, astronomii, fiziki, khimii , 1958, Nr 5, pp 151 - 164 (USSR)

ABSTRACT: The present paper contains a short survey of the methods of production and of the properties of the so-called oxysalts $Be_4O(R\,COO)_6$, as well as of the applicabilities of these combinations. It mainly concerns with a summary of western results. The following Soviet researchers were mentioned : A.V. Novoselova, A.I. Grigor'yev, K.N. Semenenko, V.N. Maksimov, N.Ya. Turova, and N.N. Krasovskaya. The paper contains no new results. There are 55 references, 12 of which are Soviet, 13 French, 12 German, 9 English, 6 American, 2 Japanese, and 1 Italian.

ASSOCIATION: Kafedra neorganicheskoy khimii (Chair of Inorganic Chemistry)

SUBMITTED: November 4, 1957

Card 1/1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5 (2, 3)

AUTHORS: Novoselova, A. V., Semenenko, K. N., Turova, N. Ya. SOV/55-58-6-18/31

TITLE: Beryllium-organic Compounds (Berilliyorganicheskiye soyedineniya)

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya matematiki, mekhaniki, astronomii, fiziki, khimii, 1958, Nr 6, pp 139-147 (USSR)

ABSTRACT: This article gives a survey of the known possibilities of obtaining and of the fundamental properties of beryllium-organic compounds. The data concerning these compounds are from Western publications. The various existing types of beryllium-organic compounds (BeR_2 and BeRX, where R denotes aliphatic or aromatic radicals, X - a halide, alkoxyl, hydrogen or the NR_2 group), as well as the hitherto nearly unknown type RBeR' are discussed in detail. There are 2 tables and 40 references, 4 of which are Soviet.

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Beryllium-organic Compounds SOV/55-58-6-18/31

ASSOCIATION: Kafedra neorganicheskoy khimii (Chair for Inorganic Chemistry)

SUBMITTED: December 25, 1957

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APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Semenenko K.N.

AUTHORS: Simanov, Yu.P., Burov, V.S.,(deceased), Semenenko, K.N. 32-1-43/55

TITLE: A Simple Device for Taking X-Ray Pictures of Monocrystals at High Temperatures (Prostoye prisposobleniye dlya rentgenos"yemki monokristalla pri vysokoy temperature).

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 1, pp. 107-107 (USSR)

ABSTRACT: The present paper describes a new additional device to be used with the X-ray camera PKCO. According to the diagram the device consists of a round copper block with an opening passing through its center, into which a thermocouple is fitted. This block rests upon a second asbestos block which, at the same time, serves as a current- and heat insulator. The device is placed firmly upon the goniometer head of the camera. The ends of the thermocouple are connected to the galvanometer "M-82". On the copper block an annular Nichrome heater is fastened which is connected with the mains by means of a step-down transformer. The sample (monocrystal) is pasted immediately on to the soldering seams of the thermocouple by means of a special adhesive, which should be somewhat above

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A Simple Device for Taking X-Ray Pictures of Monocrystals at High Temperatures

32-1-43/55

the openings of the copper block. In this way the monocrystal of $Be_4O(GH_3GOO)_6$ was investigated at temperatures of 20, 50, 80 and 120°. The transformation of crystallization could be well determined by means of X-ray pictures. There are 1 figure, and 2 references, 1 of which is Slavic.

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Card 2/2 1. X-ray cameras-Adapters

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Stepanenko, K. N.

AUTHORS: Grigor'yev, A. I., Novoselova, A. V., Semenenko, K. N. 78-2-25/60

TITLE: Determination of the Molecular Weight of Dissolved Substances According to the Method of Diffusion Through a Porous Glass Platelet (Opredeleniye molekulyarnykh vesov rastvorennykh veshchestv metodom diffuzii cherez poristuyu steklyannuyu plastinku)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 190-192 (USSR)

ABSTRACT: The idea of Northrop Anson (reference 1) was applied to determine molecular weights (of the order of magnitude of 400 to 500) of substances dissoved in chloroform. The molecular weights are computed from the experimentally found diffusion coefficients of the substance under investigation and of a substance with a known molecular weight with the formula

$$\frac{D'}{D''} = \frac{\sqrt{M''}}{\sqrt{M'}}$$

Card 1/2 The oxyacetate and the oxypropionate of beryllium were in-

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Determination of the Molecular Weight of Dissolved Substances 32-2-25/60
According to the Method of Diffusion Through a Porous Glass Platelet

vestigated and a difference of only 0,5% to the computed molecular weight was found. When the molecular weight of anthracene was determined, however, a difference of 19% was found, which can be due to the differences between the structures of the Be-oxyacetate and that of anthracene (corresponding to the observations made by Drintzainer, reference 3). The application of a standard as an accompanying substance is therefore proposed for the purpose of improving the method. The radioactive C^{14} isotope was, among others, used in order to remove difficulties of analytical kind. For the determination of the specific activities, the solutions within the cell and without were vaporized after diffusion, the residue was dessiccated, combusted and the $C^{x}O_2$ was transformed into $BaC^{x}O_3$. There are 1 figure, 4 tables, and 4 references, 1 of which is Slavic.

ASSOCIATION: Moscow State University imeni M. V. Lomonosov
(Moskovskiy gosudarstvennyy universitet imeni M. V. Lomonosova)

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1. Molecular weight-Determination 2. Chloroform-Applications

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SOV/20-122-3-20/57

AUTHORS: Grigor'yev, A. I., Corresponding Member, Academy of Sciences, USSR, Novoselova, A. V., Semenenko, K. N.

TITLE: Compounds of Beryllium Hydroxy Acetate With Sulfur Dioxide (Soyedineniya oksiatsetata berilliya s sernistym angidridom)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 3, pp 397-399 (USSR)

ABSTRACT: Affiliation products containing mainly amino nitrogen are described for beryllium hydroxy acetate (Refs 1-3). These compounds are stable enough and are probably formed at the expense of the free electron pair of nitrogen. However, for the substance mentioned first in the title compounds of a weaker binding may be expected, namely of the type of the so-called "inclusion compounds" (soyedineniya vklyucheniya Pl.) (Refs 4,5). The compound mentioned in the title probably is such an "inclusion compound" (Ref 2). This problem is discussed in detail in the present paper. In the concentration by the evaporation of a solution of beryllium hydroxy acetate in liquid sulfur dioxide the latter compound is precipitated in form of well developed octahedrons. The thus forming compound

Card 1/4

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

Compounds of Beryllium Hydroxy Acetate With Sulfur Dioxide

is extremely instable at room temperature and decomposes into its two initial products. This makes difficult the determination of its composition and the preparative isolation by means of the usual methods of chemical analysis. In order to investigate the interaction of both substances mentioned in the title the authors studied the method of the construction of diagrams at a constant temperature: composition - vapor pressure in the system formed by them. For this purpose they used the Huettig tensiometer (tenzievdiometr) (Ref 6). The working process is described. The equilibrium could be observed after 10-20 hours. Figure 1 shows the isothermal lines of the composition versus pressure function for -9,5, -15, -20 and -30°. From the general view of the isothermal lines it can be seen that in the case of a concentration by evaporation of one of the mentioned saturated solutions a compound $Be_4O(CH_3COO)_6 \cdot 2SO_2$ is precipitated. Thus, it was observed that the compound $3Be_4O(CH_3COO)_6 \cdot 4SO_2$ (described by the authors in reference 2) represents a product of a partial decomposition of the compound of beryllium hydroxy acetate with molecules of sulfur dioxide. Besides a compound 2 : 1 another one 1 : 1 $Be_4O.(CH_3COO)_6 \cdot SO_2$ which forms on the

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Compounds of Beryllium Hydroxy Acetate With Sulfur Dioxide

decomposition of the first was observed in the system. The stability of the compounds decreases with the increase in temperature. It is remarkable that in this case the values of the heats of formation (on the average 9,22 kcal per 1 g mol SO_2) are lower than in the normal case of coordination compounds. Furthermore, it is of interest that at -10° (boiling point of SO_2) the discussed compounds have the characteristic features of solid solutions and can exist only at increased pressure. According to radiographic analyses $Be_4O(CH_3COO)_6 \cdot 2SO_2$ crystallizes in a cubic diamond-like lattice with a period of the elementary cell of a = 17,1 Å. The density at -12° = 1,43, roentgen density = 1,42. In conclusion a rough outline of the structure of this substance is given. There are 2 figures and 7 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

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5(2)

SOV/78-4-3-10/34

AUTHORS: Turova, N. Ya., Novoselova, A. V., Semenenko, K. N., Savost'yanova, R. I.

TITLE: On the Phenolates of Beryllium (O fenolyatakh berilliya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 3, pp 549-552 (USSR)

ABSTRACT: The interaction between beryllium chloride and β-naphthol and p- and m-cresols has been investigated and the properties of the resulting phenolates have been described. The reaction of beryllium chloride with o-, p-, m-cresol takes place at 90-100°C. The interaction of p- and m-cresol with $BeCl_2$ takes place under a strong development of HCl. The phenolates of beryllium are white, amorphous, hygroscopic substances, which slowly hydrolize in air. Thermographic and radiographic investigations were carried out. The following phenolates have been prepared: β-naphthol beryllium ($Be(OC_{10}H_7)_2$ and $Be(p\text{-}OC_7H_7)_2$ and $Be(m\text{-}OC_7H_7)_2$. The phenolates of beryllium are slightly soluble in benzene and xylene, stable in ether. Decomposition occurs under the action of methyl alcohol.

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SOV/78-4-3-10/34

On the Phenolates of Beryllium

There are 1 figure and 7 references, 2 of which are Soviet.

SUBMITTED: January 4, 1958

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SOV/78-4-4-41/44

5(2)

AUTHORS: Semenenko, K. N., Gordeyev, I. V.

TITLE: Investigation of the Monoclinic Modification of Beryllium Oxyacetate (Issledovaniye monoklinnoy modifikatsii oksiatsetata berilliya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 4, pp 952-954 (USSR)

ABSTRACT: The monoclinic modification of beryllium oxyacetate is transformed very slowly into the stable cubic modification, whereby the vapor pressure may be determined according to Knudsen's method. The vapor pressure of the monoclinic modification dependent on temperature is expressed by the equation

$$\log P = 12.777 - \frac{6025.2}{T}$$

The results of measurement of the vapor pressure are contained in table 1. The reciprocal position of the straight line $\lg P = a - \frac{B}{T}$ of the three modifications of $Be_4O(CH_3COO)_6$ is given in figure 2. The heat of sublimation of the monoclinic modification $Be_4O(CH_3COO)_6$ amounts to 27.56 kcal/mole. The heats

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of sublimation of the monoclinic modification and high-temperature modification of beryllium oxyacetate are close to one another - 27.56 and 27.10 kcal/mole. They indicate great structural similarity of both modifications. The authors thank A. S. Pashinkin for valuable advice and assistance in the work. There are 2 figures, 1 table, and 6 references, 2 of which are Soviet.

SUBMITTED: October 9, 1958

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(2) SOV/78-4-5-10/46

AUTHORS: Turova, N. Ya., Novoselova, A. V., Semenenko, K. N.

TITLE: On the Alcoholates of Beryllium (Ob alkogolyatakh berilliya) Communication I.

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 997-1001 (USSR)

ABSTRACT: The syntheses for the preparation of the alcoholates of beryllium were investigated and some properties of beryllium ethylate were discussed. The reaction between metallic beryllium and absolute ethyl alcohol was recommended in the presence of $BeCl_2$, $HgCl_2$ or J for the purpose of synthetizing beryllium ethylate. Beryllium ethylate of the composition $Be(OC_2H_5)_2$ is a white amorphous substance. The product is not soluble in water and in the usual organic solvents. Several properties of beryllium ethylate, especially its behavior with respect ot absolute ethyl alcohol, anhydrous acetic acid, and alcoholic $BeCl_2$-solution were investigated. In the interaction between beryllium ethylate and anhydrous acetic acid in an ether medium an insoluble compound with the composition $Be(OC_2H_5)(OCOCH_3)$ is formed after some hours with a molar ratio of components of 1:1. In the interaction of beryllium

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On the Alcoholates of Beryllium

SOV/78-4-5-10/46

ethylate with 0.5 N beryllium chloride solution, beryllium ethylate dissolves completely in absolute ethyl alcohol within two hours. With the evaporation of this solution a syrup-like mass is formed. The dissolution process of beryllium ethylate is connected with the formation of complex compounds of the type $Be(OR)_2 \cdot BeCl_2$ or $Be(BeCl_2(OR)_2)$ in alcoholic $BeCl_2$-solution. The interaction between beryllium and absolute methyl alcohol shows that, in the presence of $BeCl_2$, $HgCl_2$ and J, a compound of variable composition is formed, for which the general formula $\left[xBe(OCH_3)_2 \cdot yBe(OCH_3)Hal\right]_n$ holds. In the interaction between $BeCl_2$ and $Na\left[Be(OCH_3)_4\right]$ a mixture of NaCl and $Be(OCH_3)_2$ is formed. There are 13 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 3, 1958

Card 2/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SOV/78-4-5-45/46

5(2)

AUTHORS: Turova, N. Ya., Novosalova, A. V., Semenenko, K. N.

TITLE: The Synthesis of the Etherates of Beryllium Halides (Sintez efiratov galogenidom berilliya)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 1215-1216 (USSR)

ABSTRACT: The synthesis of the etherates of beryllium chloride and beryllium bromide is carried out by the direct interaction between the metallic beryllium and halogens or hydrogen chloride in an absolute ether medium. The syntheses of the etherates of bromides and iodides of beryllium are carried out in the nitrogen flow. The following compounds were isolated: $BeCl_2 \cdot 2(C_2H_5)_2O$ and $BeBr_2 \cdot 2(C_2H_5)_2O$. The melting temperatures of the etherates of beryllium chloride and beryllium bromide agree well with the data given by the authors for preparations produced by the interaction of anhydrous halides with ether. It was not possible to represent etherate of beryllium iodide in the purest form. The method described for the synthesis of the etherates of beryllium halides is of a general character and may be used for the production of

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(2) SOV/78-4-1o-38/4o

AUTHORS: Turova, N. Ya., Novoselova, A. V., Semenenko, K. N.

TITLE: On Compounds of Beryllium Chloride With Tetrahydrofuran

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 1o, pp 241o - 2411(USSR)

ABSTRACT: The system $BeCl_2$ - tetrahydrofuran was investigated in the temperature range - 78 up to +150° (Table 1: Solubility, Fig 1: Phase Diagram, Fig 2: Dependence of logC on $\frac{1}{T}$). At low temperature $BeCl_2 \cdot 3C_4H_8O$ is formed as solid phase at the bottom which decomposes at -2° to yield $BeCl_2 \cdot 2C_4H_8O$. This melts at 15o° without decomposition, is more stable than the etherate of beryllium chloride when exposed to air, well soluble in benzene and insoluble in petroleum ether. There are 2 figures, 1 table, and 4 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: May 22, 1959

Card 1/1

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5(2) SOV/20-125-3-25/63

AUTHORS: Grigor'yev, A. I., Novoselova, A. V., Corresponding Member AS USSR, Semenenko, K. N.

TITLE: On the Compound Formed by Beryllium Oxy-acetate and Nitrogen Dioxide (O soyedinenii oksiatsetata berilliya s dvuokis'yu azota)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 3, pp 557-559 (USSR)

ABSTRACT: It was found that $Be_4O(CH_3COO)_6$ forms adducts with NO_2, similar to those formed with SO_2 ($Be_4O(CH_3COO)_6 \cdot 2SO_2$ and $Be_4O(CH_3COO)_6 \cdot SO_2$). The mentioned oxy-acetate is well soluble in liquid nitrogen dioxide at room temperature. If this solution is vaporized achromatic needlelike anisotropic crystals are separated. They decompose quickly in air under formation of brown NO_2-vapors. After this decomposition beryllium oxy-acetate is left back in its cubical basic modification. The composition of the crystals may be approximately described by the following formulas: $Be_4O(CH_3COO)_6 \cdot 3NO_2$ or

Card 1/3

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

On the Compound Formed by Beryllium Oxy-acetate and Nitrogen Dioxide

$Be_4O(CH_3COO)_6 \cdot 1,5N_2O_4$. By means of the measurement of the magnetic susceptibility was found that N_2O_4 probably takes part in the mentioned compounds. In order to define their composition precisely as well as in order to determine the possibility of formation of other compounds in the system beryllium oxy-acetate - nitrogen dioxide the diagrams: composition - vapor pressure at constant temperature were plotted. The tensieudiometer of Hüttig (Khyuttig) served for this purpose. Its main parameters and the method were the same, as in reference 1 with the exception of a small modification which takes the aggressiveness of the gas into account because it reacts with mercury. After 2-3 hours the equilibrium in the system was re-established. Figure 1 shows isothermal lines at 10.0 and 19.0°C. Their general shape shows that the compound $Be_4O(CH_3COO)_6 \cdot 1,5N_2O_4$ is separated by the evaporation of the saturated $Be_4O(CH_3COO)_6$ solution in the liquid NO_2. No other compounds were found to exist in the system. The last mentioned compound dis-

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

On the Compound Formed by Beryllium Oxy-acetate and Nitrogen Dioxide

sociates as a true chemical compound in contrast to the two compounds formed with SO_2 (mentioned above). The decomposition of the two last mentioned compounds proceeds by the formation of phases of variable composition. This contrast is assumed to explain the quicker establishment of the dissociation equilibrium of the compound with NO_2. The dependence of the dissociation pressure was explained by the isothermal lines (Table 1, Fig 2). Furthermore the compound obtained was investigated radiographically, its density and crystalline structure determined. There are 2 figures, 1 table, and 4 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvenny universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: January 2, 1959

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

[redacted], L.F.

High-temperature modification of beryllium oxyacetate. Zhur. strukt. khim. 1 no. 1:142-144 [illegible] '60. (MIRA 14:2)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Beryllium acetate)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya.; NOVOSELOVA, A.V.; SEMENENKO, K.N.

Solubility in the system beryllium chloride diethereate-ethyl ether. Zhur.neorg.khim. 5 no.1:117-123 Ja '60. (MIRA 13:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Beryllium compounds) (Esther)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; TUROVA, N.Ya.; URAZBAYEVA, R.N.

Synthesis of the lithium aluminum hydride. Zhur.neorg.khim. 5 no.2:508 F '60. (MIRA 13:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Aluminum lithium hydride)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

69047

5.3700(B)

AUTHORS: Maksimov, V. N., Semenenko, K. N., Naumova, T. N., Novoselova, A. V.

S/078/60/005/03/009/048
B004/B002

TITLE: Aluminum Acetates

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 558 - 564 (USSR)

ABSTRACT: After a brief survey of publications, the authors report on their investigation of aluminum acetates. They produced aluminumtriacetate from aluminum ethylate and acetic anhydride. $Al(CH_3COO)_3$ is easily soluble in liquid ammonia under the development of $Al(CH_3COO)_3 \cdot 3NH_3$. During thermal decomposition, the triacetate gradually passes over into di- and monoacetate (Figs 1,2). The data of the radioanalysis taken by means of an RKD camera and Fe radiation of the BSV tube are given by table 2. The authors also investigated basic aluminum acetates. From $Al(OH)_3$ plus acetic acid and also from $AlCl_3$ plus acetic acid they obtained the same compound $Al(OH)(CH_3COO)_2$ whose radioanalysis is given in table 1. The basic diacetate has a rhombic, face-centred lattice with the lattice constants being $a = 13.62 \pm 0.01$ Å, $b = 14.40 \pm 0.01$ Å, $c = 12.60 \pm 0.01$ Å. On the basis

Card 1/3

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Aluminum Acetates

69047
S/078/60/005/03/009/048
B004/B002

of the density being 1.67, a lattice cell contains 16 molecules. The basic diacetate is little soluble in water, chloroform and liquid SO_2, and insoluble in alcohol, acetone, ether, and liquid ammonia. On the basis of the thermogram (Fig 3) taken by means of the Kurnakov pyrometer type PK-42, the formula $Al(OH)(CH_3COO)_2$ was found to be right, not $Al_2O(CH_3COO)_4 \cdot H_2O$. During the reaction of sodium acetate (or barium acetate) and aqueous solutions of $AlCl_3$, a basic salt was obtained whose composition is between $Al(OH)(CH_3COO)_2 \cdot 2H_2O$ and $Al(OH)(CH_3COO)_2 \cdot 2.5H_2O$, and whose radiogram (Table 2) differs from that of $Al(OH)(CH_3COO)_2$. The thermogram of figure 4 shows the water separation of this salt during heating. The nonaqueous salt thus developing, however, radiographically differs from the salt produced by means of free acetic acid, despite the same stoichiometric composition. By the influence of sodium acetate on aluminum sulphate, the compound $Al(OH)(CH_3COO)_2 \cdot 2.5H_2O$ was obtained, and during the reaction of sodium acetate and aluminum nitrate, $Al(OH)(CH_3COO)_2$ developed; both were radiographically identified. Aluminum nitrate with acetic anhydride developed a

Card 2/3

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Aluminum Acetates

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S/078/60/005/03/009/048
B004/B002

compound of varying composition which always contained up to 3% NO_3^-, and whose radiogram was identical with that of aluminum triacetate. There are 2 figures, 4 tables, and 22 references, 4 of which are Soviet.

SUBMITTED: November 22, 1958

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya., NOVOSELOVA, A.V., SEMENENKO, K.N.

Solubility in the system beryllium bromide dietherate - ether.
Zhur. neorg. khim. 5 no.4:941-944 Ap '60. (MIRA 13:7)

1. Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova.
(Beryllium compounds)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.

Structure of the inclusion compound of beryllium oxyacetate with sulfur dioxide. Zhur. neorg. khim. 5 no. 12:2687-2689 D '60. (MIRA 13:12)

(Beryllium compounds)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

86488

S/078/60/005/008/021/031/XX
B023/B066

15.8117 2209, 2109, 2808, 3215

AUTHORS: Turova, N. Ya., Novoselova, A. V., Semenenko, K. N.

TITLE: Compounds of Beryllium Chloride With Ethers

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 8, pp. 1705-1709

TEXT: The authors report on their synthesis and investigation of new compounds of beryllium chloride with dimethyl ether, dibutyl ether, tetrahydropyran, and ethylene glycol dimethyl ether (1,2-dimethoxy-ethane). The following rules were established: 1) The thermal stability of beryllium chloride complexes with ethers of monovalent radicals increases rapidly on transition of compounds of the aliphatic series to cyclic ethers. 2) The melting point of $BeCl_2 \cdot 2R_2O$ (R = alkyl radical) decreases considerably in the homologous series of aliphatic ethers (at R = CH_3, C_2H_5, n-C_4H_9, the melting point is 63°, 43°, and <-70°C, respectively). 3) The largest difference may be seen in beryllium chloride compounds with ethers

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36488

Compounds of Beryllium Chloride With Ethers S/078/60/005/008/021/031/XX
E023/B066

of mono- and divalent alcohols. Complexes with monoethers form well crystallizable compounds which melt congruently (except $BeCl_2 \cdot 2(CH_3)_2O$) and are soluble in the corresponding ethers, in aromatic hydrocarbons, carbon tetrachloride, and carbon disulfide, but insoluble in paraffin hydrocarbons. On the other hand, compounds of the beryllium halides with ethers of divalent alcohols are decomposed on heating without melting. They are insoluble in all organic solvents, except in alcohols, and are inert to a higher degree than compounds with ethers of monovalent alcohols. All these properties indicate that compounds of beryllium chloride with ethers of divalent alcohols have a polymeric character. Beryllium chloride dioxanate is assumed to have a chain structure formed by the coordination bonds of both oxygen atoms in dioxane. Well soluble and crystallizable monodioxanates, such as chloride, bromide, and iodide dioxanates of divalent mercury are, apparently, polymers with a low association degree. The formation of didioxanates is particularly characteristic of halides of divalent metals having the coordination number 6. The properties of magnesium, nickel, and iron halides, as well as of calcium, strontium, and barium bromides and iodides are similar to those of monodioxanates.

Card 2/3

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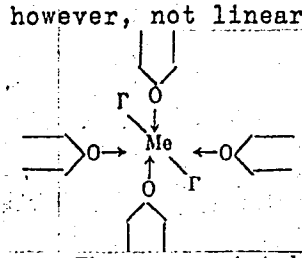
"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

86488

Compounds of Beryllium Chloride With Ethers S/078/60/005/008/021/031/XX
B023/B066

They are insoluble in dioxane and organic solvents, and separate in the form of a fine crystalline powder. They also have a polymeric structure which is, however, not linear but reticular:



Z.NC 1960, Vol 5, No 8, pp. 1705-1709

Γ = Halogen. There are 4 tables and 14 references: 8 Soviet, 1 US, and 5 German.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: May 22, 1959

Card 3/3

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

S/189/60/000/003/008/013/XX
B003/B067

AUTHORS: Tarasevich, N. I., Semenenko, K. A., Semenenko, K. N.

TITLE: X-Ray Photographic Method of Determining the Products of Chemical Reactions in the Spectral Determination of Tantalum

PERIODICAL: Vestnik Moskovskogo universiteta. Seriya 2, khimiya, 1960, No. 3, pp. 37-39

TEXT: The authors studied the reaction products which were formed from tantalum pentoxide in the electric arc in the crater of the carbon electrode (Ta_2O_5). The investigation method applied is described in an earlier paper. (Ref. 1). The very finely powdered Ta_2O_5 was filled into the electrode crater and closed with a cover of coal (provided with an opening for the gases). In all experiments the reaction conditions in the arc were the same. The X-ray powder patterns of the reaction products were taken with РКД (RKD) cameras. A БСВ (BSV) tube served as radiation source (copper electrode). The product formed from Ta_2O_5 (under the

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; KURDYUMOV, G.M.

Some properties of beryllium α-hydroxynaphthoate. Vest. Mosk. un. Ser. 2: Khim. 15 no.5:56-58 S-O '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet, kafedra neorganicheskoy khimii.
(Beryllium compounds) (Naphthoic acid)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; LAVUT, Ye.A.

X-ray radiographic examination of sodium tellurite pentahydrate, $Na_2TeO_3 \cdot 5H_2O$. Vest. Mosk. un. Ser. 2: Khim. 15 no.6:27-29 N-D '60. (MIRA 14:2)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.
(Sodium tellurite—Spectra)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

5.2100

688 50

AUTHORS: Kuvyrkin, O. N., Breysov, O. N., Novoselova, A. V., Semenenko, K. N.

S/076/60/034/02/012/044
B010/B015

TITLE: On the Polymorphism of Beryllium Chloride

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 2, pp 343-348 (USSR)

ABSTRACT: Beryllium chloride forms several polymorphous modifications. Since hitherto only the crystal structure of fibrous modifications has been investigated, the present study deals with the thermal and X-ray phase analysis of the polymorphism of beryllium chloride. The composition of the preparation applied is given (Table 1). Thermal structure analysis of this preparation was carried out with a PK-52 Kurnakov pyrometer and Pt/PtRh thermocouples. The Cu radiation of a BSV tube was used for the X-ray analyses, and the photographs were taken by RKD or RKU-86 cameras, and Unicam cameras at high temperatures, respectively. The results of the X-ray phase analyses are given (Tables 2-4). A rapid cooling-down of the beryllium chloride melt, or a crystallization from the gas phase, leads to a formation of the metastable α'-modification which is similar to silicon sulfide with respect to its structure. On heating the α'-modification is transformed at 250° into the cubic β'-modification which in turn is transformed into the stable

Card 1/2

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

68850

On the Polymorphism of Beryllium Chloride

S/076/60/034/02/012/044
B010/B015

β-modification at 340°. A slow cooling-down leads to the transformation melt $\overset{425^\circ}{\rightleftharpoons} \alpha(BeCl_2) \overset{405^\circ}{\rightleftharpoons} \beta BeCl_2$.
It is possible that the α-modification, the structure of which could not be identified, is the same as the α'-modification. The diagram obtained does, however, not comprise all polymorphous transformations of beryllium chloride, since N. V. Bychkov, e.g., (Ref 12) on crystallization of beryllium chloride in quartz vessels discovered a modification differing from the afore-mentioned modifications. There are 2 figures, 4 tables, and 12 references, 5 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 24, 1958

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; KURDYUMOV, G.M.; GORDEYEV, I.V.

Heats of sublimation of beryllium oxysalts. Zhur.neorg.khim. 6 no.9:2025-2028 S '61. (MIRA 14:9)
(Beryllium salts)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SITDYKOVA, N.S.; TUROVA, N.Ya.; SEMENENKO, K.N.; NOVOSELOVA, A.V.

Compounds of beryllium chlorides with dialkyl sulfides. Zhur. neorg.khim. 6 no.11:2512-2516 '61. (MIRA 14:10)
(Beryllium chloride) (Sulfide)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; KURGYUMOV, G.M.

Beryllium hydroxybenzoate. Zhur.neorg.khim. 6 no.11:2568-2571 '61. (MIRA 14:10)

(Beryllium compounds)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

KURDYUMOV, G.M.; SEMENENKO, K.N.

Beryllium oxybenzoate compounds with aromatic hydrocarbons. (MIRA 15:9)
Zhur.neorg.khim. 7 no.9:2115-2121 S '62.
(Beryllium compounds) (Hydrocarbons)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; KURDYUMOV, G.M.

Beryllium oxysalts of the alicyclic and aliphatic series. Zhur.neorg.khim. 7 no.7:1512-1515 Jl '62. (MIRA 16:3)
(Beryllium salts)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; NAUMOVA, T.N.

Polymorphism of beryllium bromide and iodide. Zhur.strukt.khim. 4 no.1:67-72 Ja-F '63. (MIRA 16:2)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Berillium bromide) (Berillium iodide)
(Polymorphism)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya.; SITDYKOVA, N.S.; NOVOSELOVA, A.V.; SEMENENKO, K.N.

Thermal decomposition of beryllium halide etherates. Zhur.neorg.-khim. 8 no.2:528-531 F '63. (MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Beryllium halides) (Ethers)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya.; SEMENENKO, K.N.; NOVOSELOVA, A.V.

Infrared absorption spectra and some problems of the complex formation of inorganic halides with ethers. Zhur.neorg.khim. 8 no.4:882-892 Ap '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Halides) (Ethers) (Complex compounds--Absorption spectra)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

MAKSIMOV, V.N.; SEMENENKO, K.N.

Thermal stability of cerium and neodymium acetates. Vest.Mosk.un. Ser.2;Khim. 18 no.1:13-17 Ja-F '63. (MIRA 16:5)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.
(Cerium acetates--Thermal properties)
(Neodymium acetates--Thermal properties)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; NAUMOVA, T.N.

Structure and some properties of aluminum halides. Zhur. neorg. khim. 9 no.6:1316-1322 Je '63 (MIRA 17:8)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; TUROVA, N.Ya.

Structure of "onium" compounds of beryllium halides. Zhur.neorg.khim. 8 no.9:2093-2098 S '63. (MIRA 16:10)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya.; SEMENENKO, K.N.; NOVOSELOVA, A.V.

Compounds of beryllium chloride with phosphorus oxychloride.
Zhur.neorg.khim. 8 no.9:2155-2162 S '63. (MIRA 16:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

KURDYUMOV, G.M.; SEMENENKO, K.N.

Heats of formation and the structure of the compounds of beryllium hydroxybenzoate with benzene and styrene. Zhur. neorg. khim. 8 no.11:2545-2548 N '63. (MIRA 17:1)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

ACCESSION NR: AP4019502 S/0078/64/009/003/0765/0766

AUTHOR: Muratov, F. Sh. (Deceased); Semenenko, K. N.

TITLE: The cubic modification of beryllium oxide

SOURCE: Zhurnal neorg. khimii, v. 9, no. 3, 1964, 765-766

TOPIC TAGS: beryllium oxide, cubic modification, hexagonal modification, x ray data, phase transition

ABSTRACT: The phase transition of BeO from the hexagonal to the cubic modification at about 2000C and the existence of the cubic form only at temperatures above 2000C were reported by D. K. Smith, C. F. Cline, V. D. Frechette (J. Nucl. Mat., 6, 265 (1962)). An earlier work by F. Sh. Mauratov and A. V. Novoselova (Dokl. AN SSSR, 129, 334 (1959); 143, 599 (1962)), showed that in the reaction

$$BeO_{solid} + 3/2C_{graphite} \rightleftharpoons 1/2Be_2C_{solid} + CO_{gas}$$

Card 1/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

ACCESSION NR: AP4019502

the Be_2C dissociated and the Be was oxidized:

$$Be_{gas} + CO_{gas} = BeO_{solid} + C_{graphite}$$

X-rays of the products showed hexagonal BeO, graphite, and a number of unidentified lines. By comparing these unidentified lines with data by Smith et al., it is established that they belong to the cubic modification of BeO. It is noted that in Muratov's work, the cubic form was observed in the sublimate at 1730C, was present simultaneously with the hexagonal form, and was stabilized by hardening. Orig. art. has: 1 table.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet Khimicheskiy fakul'tet Kafedra neorganicheskoy khimii (Moscow State University, Chemistry Faculty, Department of Inorganic Chemistry).

SUBMITTED: 14Mar63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 003 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9"

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

TUROVA, N.Ya.; KEDROVA, N.S.; SEMENENKO, K.N.; NOVOSELOVA, A.V.

Interaction of etherates of beryllium chlorides and aluminum chlorides. Zhur.neorg.khim. 9 no.4:905-916 Ap '64.
(MIRA 17:4)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

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SEMENENKO, K.N.; TUROVA, N.Ya.

Structure of beryllium chloride hydrate-etherate. Zhur.neorg.khim. 9 no.4:1019-1020 Ap '64. (MIRA 17:4)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; NAUMOVA, T.N.; GOROKHOV, L.N.; SEMENOVA, G.A.; NOVOSELOVA, A.V.

Interaction between the chlorides of Al and Fe. Dokl. AN SSSR 154 no.1:169-170 Ja'64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Novoselova).

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; NAUMOVA, T.N.; GOROKHOV, L.N.; NOVOSELOVA, A.V.

Interaction between the chlorides of aluminum and beryllium.
Dokl. AN SSSR 154 no. 3:648-649 Ja '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova.
2. Chlen-korrespondent AN SSSR (for Novoselova).

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SEMENENKO, K.N.

(MIRA 18:3)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N., TUROVA, N.Ya.

Structure of beryllium chloride hydrate. Zhur. neorg. khim. 10 no.1:77-82 Ja '65. (MIRA 18:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova. Submitted July 19, 1963.

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, K.N.; SUROV, V.N.

Study of sodium chloroberyllate and of the nature of its reaction with beryllium chloride. Izv. AN SSSR. Neorg. mat. 1 no.11:1982-1989 N '65. (MIRA 18:12)

1. Khimicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova. Submitted June 11, 1965.

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SEMENENKO, K.N.; GRIGOR'YEV, A.I.

Structure of potassium and sodium chloroberyllates.
Zhur.neorg.khim. 10 no.12:2591-2595 D '65.
(MIRA 19:1)

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SEMENENKO, K.N.; TUROVA, N.Ya.

X-ray diffraction examination of a complex compound of aluminum chloride with diethyl ether. Zhur.neorg.khim. 10 no.12:2830-2831 D '65.

(MIRA 19:1)

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SEMENENKO, K.N.; KEDROVA, N.S.; IOFA, B.Z.

Radiochemical study of sodium chloroberyllate and chloroaluminate. Zhur.neorg.khim. 10 no.12:2833-2834 D '65.
(MIRA 19:1)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

NAMESTNIKOVA, L.N.; EDEL', Yu.P.; SEMENENKO, L.A.

Desirability of a postmortem quantitative determination of alcohol in the contsnts and tissues of the stomach. Sud.-med. ekspert. 6 no.3:55 Jl-S'63. (MIRA 16:10)

1. Kafedra sudebnoy meditsiny (zav. - N.P.Marchenko) Khar'kovskogo meditsinskogo instituta i Khar'kovskoye oblastnoye byuro sudebno-meditsinskoy ekspertizy (nachal'nik V.M.Moiseyev).
(ALCOHOL IN THE BODY) (AUTOPSY)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

MARCHENKO, N.P.; SEMENENKO, L.A.

Concerning the so-called "new sign" of intravital trauma proposed by V.I. Akopov. Sud.-med. ekspert. 2 no.3:56-58 Jl-S '59.
(MIRA 13:4)

1. Kafedra sudebnoy meditsiny (zav. - prof. N.N. Bokarius) Khar'kovskogo meditsinskogo instituta i Khar'kovskoye oblastnoye byuro sudebnomeditsinskoy ekspertizy (nachal'nik N.P. Marchenko).
(WOUNDS)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SOTNIKOVA, L.L., dots.; SEMENENKO, L.A., sudebnomeditsinskiy ekspert (Khar'kov).

How did you dare? Zdorov'e 6 no.4:24 Ap '60. (MIRA 13:8)
(ABORTION)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

SEMENENKO, L.A.; POKUS, A.I.

Case of Poisoning by delagyl. Sud-med. ekspert. 6 no.4:45 O-D'63 (MIRA 16:12)

1. Khar'kovskoye oblastnoye byuro sudebnomeditsinskoy ekspertizy (nachal'nik V.M.Moiseyev).

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SEMENENKO, I. P.

Medicine

Personal hygiene; Kyiv, Med. vyd-vo URSR, 1951

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SEMENENKO, M.

Quality of vegetables and fruit. Sov. torg. 35 no.5:21-22 My '62. (MIRA 15:5)

1. Starshiy tovaroved gorplodoovoshchtorga, g. Volgograd.
(Produce trade)

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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001547810006-9

KAMYNIN, Yuliy Nikoalayevich; MATVEYEV, M.G., kand. tekhn. nauk, retsenzent; SEMENENKO, M.D., red.; STARODUB, T.A., tekhn. red.

[Contactless control diagrams in mine automation] Beskontaktnye skhemy upravleniia v shakhtnoi avtomatike. Kiev, Gostekhizdat USSR, 1963. 214 p. (MIRA 17:1)

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STARTSEV, V.I., otv. red.; ALEKSANDROV, B.S., red.; BELYAYEV, L.M., red.; ERUDZ', V.G., red.; VOYTOVETSKIY, V.K., red.; GALANIN, M.D., red.; DISTANOV, B.G., red.; KIMOV, A.P., red.; SEMENENKO, M.G., red.; SHAMOVSKIY, L.M., red.

[Scintillators and scintillation materials] Stsintilliatory i stsintilliatsionnye materialy. Moskva, Gos. komitet Soveta Ministrov SSSR po khimii, 1960. 319 p. (MIRA 15:4)

1. Koordinatsionnoye soveshchaniye po stsintilliatoram. 2nd, 1957. (Scintillation counters)

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CHERNYAYEV, I.I.; ZELIKOVSKAYA, N.N.; SHCHERBAKO, M.N.

Certain properties of tetraammino compounds of platinum(IV).
Zhur. neorg. khim. 6 no.1:44-47 '61. (MIRA 14:2)
(Platinum compounds)

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